UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,246	01/28/2004	Robert David Nielsen	2095.001200/P3162US1	4149

23720 7590 09/05/2007

WILLIAMS, MORGAN & AMERSON
10333 RICHMOND, SUITE 1100
HOUSTON, TX 77042

EXAMINER	
HOANG, HIEU T	
ART UNIT	**PAPER NUMBER**
2152	
MAIL DATE	**DELIVERY MODE**
09/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/766,246	NIELSEN ET AL.	
	Examiner	Art Unit	
	Hieu T. Hoang	2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to the communication filed on 01/28/2004.

2. Claims 1-36 are pending and presented for examination.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3-11, 13-15, 17-19, 28, 29, and 31-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Cajolet (US 6,192,388).

5. For claim 1, Cajolet discloses a method, comprising:

indicating to one or more remote systems in a distributed system that a task is available for processing based on a distribution list (fig. 6 step 100, assisting computers receive request for assistance on task processing, col. 9 lines 63-64, list of assistant computers);

receiving at least one response from the one or more remote systems capable of performing the task responsive to the indication (fig. 6 step 104-106, assisting computers send back response with computer characteristics that task can be done); and

allowing at least one of the remote systems to perform the task based on the at least one received response (fig. 6 steps 110-112, assisting computers participate in distributed task processing).

6. For claim 3, Cajolet further discloses the task is at least one of a compilation task, video processing task, audio processing task, image processing task, encryption task, and decryption task (fig. 5, 3D image rendering task), and wherein indicating to the one or more remote systems comprises indicating a threshold criterion that the one or more remote systems should satisfy, and wherein receiving the at least one response comprises receiving the at least one response from the one or more remote systems that satisfy the threshold criterion (fig. 8, col. 11 lines 11-60, thresholds that assistant processing computers have to pass in order to satisfy the requirement of the tasks).

7. For claim 4, Cajolet further discloses indicating the threshold criterion comprises indicating at least one of a preselected processing speed, memory size, and network speed that is desired for the one or more remote systems (fig. 8, col. 11 lines 11-60).

8. For claim 5, Cajolet further discloses receiving the at least one response comprises receiving configuration information associated with the one or more remote systems (col. 8 lines 38-40, sending configuration to task dispatcher).

9. For claim 6, Cajolet further discloses receiving the configuration information comprises receiving information including at least one of a processing speed, memory size, network speed, and load level associated with the one or more remote systems (fig. 8, col. 11 lines 11-60).

10. For claim 7, Cajolet further discloses allowing at least one of the remote systems to perform the task comprises allowing at least one of the remote systems to perform the task based on a selection scheme (col. 8 lines 43-53, selection of assistant computers).

11. For claim 8, Cajolet further discloses the selection scheme comprises at least one of allowing a remote system that responds first to perform the task and allowing a remote system to perform the compilation task based on the received configuration information (col. 8 lines 39-53, selection of assistant computer based on its configuration).

12. For claim 9, Cajolet further discloses the act of indicating comprises indicating that the compilation task is available for processing (fig. 6 steps 100-102, receive request for processing of an available task), and wherein the act of receiving comprises receiving the at least one response from a remote system that has reserved at least a portion of its resources for performing the task (fig. 8 available resources at the assistant computers).

13. For claim 10, Cajolet discloses an article comprising one or more machine-readable storage media containing instructions that when executed enable a processor to:

indicate to a plurality of remote systems in a distributed system that a task is available for processing based on a list identifying the remote systems (fig. 6 step 100, assisting computers receive request for assistance on task processing, col. 9 lines 63-64, list of assistant computers); and

allow at least one of the plurality of remote systems to perform the task (fig. 6 steps 110-112, assisting computers participate in distributed task processing).

14. For claim 11, Cajolet further discloses the task is a compilation task (col. 9 lines 6-9, a rendering task composing of many task portions) and wherein the instructions when executed enable the processor to allow at least one of the plurality of remote systems based on a selection scheme (col. 8 lines 43-53).

15. For claim 13, Cajolet further discloses the instructions when executed enable the processor to allow the remote system having at least one of a higher processing speed among the plurality of responding remote systems to perform the task (fig. 7 steps 130, 132) and a desirable performance characteristic, wherein the performance characteristic is determined based on past performance (col. 11 lines 20-60, past performance).

16. For claim 14, Cajolet further discloses the instructions when executed enable the processor to allow a plurality of remote systems to perform the task in response to determining that a number of responding remote systems exceed a number of available tasks (col. 9 lines 5-15, a plurality of assistant computers to process portions of a same task).

17. For claim 15, Cajolet further discloses the instructions when executed enable the processor to receive responses from at least one of the plurality of the remote systems, wherein the response includes configuration information associated with the one or more remote systems (col. 8 lines 38-42, responses with computer characteristics).

18. For claim 17, Cajolet further discloses the instructions when executed enable the processor to receive results from the at least one remote system that is allowed to perform the task (fig. 5, send render task and receive finished render task).

19. For claim 18, Cajolet discloses an apparatus, comprising:

means for indicating to one or more remote systems in a distributed compilation system that a task is available for processing based on a list identifying the one or more remote systems (fig. 6 step 100, assisting computers receive request for assistance on task processing, col. 9 lines 63-64, list of assistant computers);

means for receiving at least one response from the one or more remote systems capable of performing the task based on the indication (fig. 6 step 104-106, assisting

computers send back response with computer characteristics that task can be done); and

means for allowing at least one of the remote systems to perform the task based on the at least one received response (fig. 6 steps 110-112, assisting computers participate in distributed task processing).

20. For claim 19, Cajolet discloses an apparatus, comprising:

an interface adapted to communicate with one or more remote systems; and

a control unit communicatively coupled to the interface, the control unit adapted to:

indicate to the one or more remote systems in a distributed compilation system that a task is available for processing based on a list identifying the one or more remote systems (fig. 6 step 100, assisting computers receive request for assistance on task processing, col. 9 lines 63-64, list of assistant computers);

receive at least one response from the one or more remote systems capable of performing the task based on the indication (fig. 6 step 104-106, assisting computers send back response with computer characteristics that task can be done); and

allow at least one of the remote systems to perform the task based on the at least one received response (fig. 6 steps 110-112, assisting computers participate in distributed task processing).

21. For claim 28, Cajolet further discloses the control unit is adapted to identify the task that is available for processing in a queue that is accessible by one or more of the remote systems (fig. 7 steps 146-148, continuing to new task portion in a queue).

22. For claim 29, Cajolet discloses a distributed compilation system, comprising: one or more remote systems; a client system adapted to:

indicate to the one or more remote systems that a compilation task is available for processing based on a list identifying the one or more remote systems (fig. 6 step 100, assisting computers receive request for assistance on task processing, col. 9 lines 63-64, list of assistant computers);

receive at least one response from the one or more remote systems capable of performing the compiling task based on the indication (fig. 6 step 104-106, assisting computers send back response with computer characteristics that task can be done); and

allow at least one of the remote systems to perform the compilation task based on the at least one received response (fig. 6 steps 110-112, assisting computers participate in distributed task processing).

23. For claim 31, Cajolet further discloses at least one of the remote systems is adapted to: detect an indication from the client system that a compilation task is available for processing (fig. 6 step 100, assisting computers receive request for assistance on task processing); determine if the at least one remote system is capable

of processing the compilation task (fig. 6 step 104-106, assisting computers send back response with computer characteristics that task can be done); and process the compilation task for the client system in response to determining that at least one remote system is capable of processing the compilation task (fig. 6 steps 110-112, assisting computers participate in distributed task processing).

24. For claim 32, Cajolet discloses a method, comprising:

detecting an indication from a client system to process one or more compilation tasks (fig. 6 step 100, assisting computers receive request for assistance on task processing);

determining if a system that detects the indication is capable of processing at least one of the compilation task in response to detecting the indication from the client system (fig. 6 step 104-106, assisting computers send back response with computer characteristics that task can be done); and

processing the at least one compilation task for the client system in response to determining that the remote system is capable of processing the compilation task (fig. 6 steps 110-112, assisting computers participate in distributed task processing).

25. For claim 33, Cajolet further discloses providing results of the processing to the client system (fig. 5, send render task and receive finished render task).

26. For claim 34, Cajolet further discloses the processing comprises accessing a queue associated with the client system and determining the compilation task to process (fig. 7 steps 146-148, continuing to new task portion in a queue).

27. For claim 35, Cajolet discloses a method, comprising:

indicating to one or more remote systems in a distributed system that a task is available for processing (fig. 6 step 100, assisting computers receive request for assistance on task processing);

receiving at least one response from the one or more remote systems capable of performing the task responsive to the indication (fig. 6 step 104-106, assisting computers send back response with computer characteristics that task can be done); and

allowing at least one of the remote systems to perform the task based on the at least one received response (fig. 6 steps 110-112, assisting computers participate in distributed task processing).

28. For claim 36, Cajolet further discloses the distributed system is a distributed compilation system, and wherein indicating comprises indicating to the one or more remote systems that a compilation task is available for processing (fig. 6 step 100, assisting computers receive request for assistance on task processing) and wherein receiving the at least one response comprises receiving the at least one response from the one or more remote systems capable of performing the compilation task responsive

to the indication (fig. 6 step 104-106, assisting computers send back response with computer characteristics that task can be done).

Claim Rejections - 35 USC § 103

29. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

30. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cajolet as applied to claim 1 above, and further in view of Harper et al. (US 2002/0087612, hereafter Harper).

31. For claim 2, Cajolet further discloses the distribution list comprises destination addresses associated with the one or more remote systems (col. 9 lines 63-64, list of assistant computers, inherently containing their addresses), wherein

Cajolet does not explicitly disclose:

providing a message to a router that, responsive to the message, transmits at least a portion of the message to a plurality of the remote systems based on the distribution list.

However, Harper discloses the same (fig. 2, a gateway connected to a dispatcher for transmitting task advertisements)

Therefore, it would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Cajolet and Harper to dispatch tasks to multiple servers or assistant computers through a gateway or a router to implement a larger or a WAN distributed system.

32. Claims 12, 16, 20-27, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cajolet as applied to claims 10 and 29 above, and further in view of official notice (hereafter ON)

33. For claim 16, Cajolet further discloses the instructions when executed enable the processor to send a request to the plurality of remote systems coupled to a network that the task is available for processing.

Cajolet does not disclose the sending method is multicast.

However, ON is taken that it is well known in the art how to multicast a message to a plurality of receivers.

Therefore, it would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Cajolet and ON to multicast task advertising

message to a plurality of receivers that Cajolet has a list of in other to take advantage of multicasting such as sending only one message in stead of many (e.g., in the case of unicast), therefore reduce network bandwidth requirement.

34. For claim 30, the claim is rejected for the same rationale as in claim 16.

35. For claim 20, the claim is rejected for the same rationale as in claim 16. Cajolet-ON further discloses the task is a compilation task (Cajolet, col. 9 lines 6-9, a rendering task composing of many task portions).

36. For claim 21, Cajolet-ON further discloses the control unit is adapted to indicate a threshold criterion that the one or more remote systems should satisfy and further adapted to receive the at least one response from the one or more remote systems that satisfy the threshold criterion (Cajolet, fig. 8, col. 11 lines 11-60, thresholds that assistant processing computers have to pass in order to satisfy the requirement of the tasks).

37. For claim 22, Cajolet-ON further discloses the control unit is adapted to indicate at least one of a minimum processing speed, memory amount, and network speed that is desired for the one or more remote systems (fig. 8, col. 11 lines 11-60).

38. For claim 23, Cajolet-ON further discloses the control unit is adapted to receive configuration information associated with the one or more remote systems (col. 8 lines 38-40, sending configuration to task dispatcher).

39. For claim 24, Cajolet-ON further discloses the control unit is adapted to receive information including at least one of a processing speed, memory size, network speed, and load level associated with the one or more remote systems (fig. 8, col. 11 lines 11-60).

40. For claim 25, Cajolet-ON further discloses allowing at least one of the remote systems to perform the task comprises allowing at least one of the remote systems to perform the task based on a selection scheme (col. 8 lines 43-53, selection of assistant computers).

41. For claim 26, Cajolet-ON further discloses the instructions when executed enable the processor to allow that remote system which responds first to perform the task (ON, selecting a first system available to perform the task is just a design choice among many possibilities of selecting including round robin, random selection, selection of the highest performance, etc.).

42. For claim 12, the claim is rejected for the same rationale as in claim 26.

43. For claim 27, Cajolet-ON further discloses the selection scheme comprises allowing a remote system to perform the compilation task based on the received configuration information (fig. 6 steps 110-112, assisting computers participate in distributed task processing).

Conclusion

44. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Verbeke et al. US 2004/0098447.
- Howard et al. US 2003/0195938.
- Riedel. US 2002/0156931.
- Singer et al. US 6,834,298.
- Masters et al. US 2005/0055322.

45. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hieu T. Hoang whose telephone number is 571-270-1253. The examiner can normally be reached on Monday-Thursday, 8 a.m.-5 p.m., EST.

If attempts to reach the examinper by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571-272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/HH/
HH

BUNJOB JAROENCHONWANIT
SUPERVISORY PATENT EXAMINER
8/30/7